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Docket No.: 261189US6PCT

COMMISSIONER FOR PATENTS
ALEXANDRIA, VIRGINIA 22313

RE: Application Serial No.: 10/512,087
Applicants: Kiyoaki TAKIGUCHI
Filing Date: April 7, 2005
For: METHOD OF DETECTING BIOLOGICAL PATTERN, BIOLOGICAL PATTERN DETECTOR, METHOD OF BIOLOGICAL CERTIFICATE AND BIOLOGICAL CERTIFICATE APPARATUS
Group Art Unit: 3736
Examiner: Mancusco, J.

SIR:

Attached hereto for filing are the following papers:

PETITION TO MAKE SPECIAL UNDER MPEP § 708.02(VIII),
PRELIMINARY AMENDMENT AND
INFORMATION DISCLOSURE STATEMENT W/ PTO FORM 1449

Our credit card payment form in the amount of **$130.00** is attached covering any required fees. In the event any variance exists between the amount enclosed and the Patent Office charges for filing the above-noted documents, including any fees required under 37 C.F.R 1.136 for any necessary Extension of Time to make the filing of the attached documents timely, please charge or credit the difference to our Deposit Account No. 15-0030. Further, if these papers are not considered timely filed, then a petition is hereby made under 37 C.F.R. 1.136 for the necessary extension of time. A duplicate copy of this sheet is enclosed.

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Respectfully submitted,

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DOCKET NO.: 261589US6PCT

IN THE UNITED STATES PATENT & TRADEMARK OFFICE

IN RE APPLICATION OF	:
KIYOAKI TAKIGUCHI	: EXAMINER: MANCUSCO, J.
SERIAL NO: 10/512,087	:
FILED: APRIL 7, 2005	: GROUP ART UNIT: 3736
FOR: METHOD OF DETECTING BIOLOGICAL PATTERN, BIOLOGICAL PATTERN DETECTOR, METHOD OF BIOLOGICAL CERTIFICATE AND BIOLOGICAL CERTIFICATE APPARATUS	:

PETITION TO MAKE SPECIAL UNDER MPEP §708.02(VIII)

COMMISSIONER FOR PATENTS
ALEXANDRIA, VIRGINIA 22313

SIR:

I. Basis for the Petition

Pursuant to MPEP §708.02(VIII) (8th ed. Rev. August 2005), Applicants hereby petition for a special status for this Application.

II. Requirements for Granting Special Status

MPEP §708.02(VIII) established five requirements for a grant of special status. The following subsections show that each of these five requirements is satisfied in the above-identified case.

A. Submit Petition and Fee: §708.01(VIII)(A)

This petition is accompanied by the fee set forth in 37 C.F.R. §1.17(h).

B. Agree to an Election Without Traverse: §708.02(VIII)(B)

Applicants submit that Claims 59-74 included in the Preliminary Amendment filed herewith are directed to a single, patentable invention. If a restriction requirement is imposed in this Application, Applicants agree to elect without traverse.

C. State that a Preexamination Search was Made: §708.02(VIII)(C)

Applicants commissioned searches of the United States Patent and Trademark Office records within the following classes/subclasses: 340/5.8, 5.81, 5.82, 5.83; 382/115, 116, 117, 118, 125, 128, 169; and 600/309, 310, 475. Further, the search was supplemented by a broad keyword computer text search of the Examiner's Application Search Tool (EAST), BRS, JPO, EPO, and Derwent databases. The references identified as relevant in these searches are made of record in the Information Disclosure Statement filed herewith.

Thus, these searches qualify as a pre-examination search for the present application as the search methodology entailed searching by keyword and patent class in accordance with the subject matter of the disclosure.

D. Submit a Copy of the Most Relevant References: §708.02(VIII)(D)

The references found in the above search are all made of record in the information disclosure statement filed herewith. All references now of record are discussed below with reference to the claimed subject matter of Claims 59-74.

E. Submit a Detailed Discussion of the References, Pointing Out How the Claimed Subject Matter is Patentable Over the References: §708.02(VIII)(E)

Applicants submit that the independent claims of the present invention patentably distinguish over all of the references of record. Reasons for the patentability of each of the independent claims are provided below.

Claim 59 recites a biometric pattern detecting device, comprising *inter alia*:

> a light source unit configured to emit a light to be reflected or scatted in a part of a body; and
>
> a detecting unit configured to detect an image of the light reflected or scattered in the part of the body by the light source unit and generate a biometric pattern using the detected image,
>
> wherein the light source unit is set in a horizontal direction or horizontally slanted direction with respect to the part of the body and the detecting unit is set in a vertical direction or a vertical slanted direction with respect to the part of body.

An exemplary embodiment of the claimed device is depicted at Fig. 3 of the specification. Independent Claims 65 and 71 recite substantially similar features and are also patentable over the cited reference for substantially the same reasons as independent Claim 59, as discussed below.

U.S. Patent No. 4,699,149 (Rice) relates to a method and apparatus for identifying individuals based on subcutaneous blood vessel patterns. Rice's apparatus includes a light source (5), lens (10) and photosensitive pin diode (9), which detects radiation reflected from the subcutaneous layer of a body part.[1] As depicted in Fig. 2, however, the light source (5) and the pin diode (9) emit light, and detect light, respectively, at the same angle relative to the detected body part. Accordingly, Rice fails to teach or suggest that "the light source unit is set in a horizontal direction or horizontally slanted direction with respect to the part of the

[1] Rice, col. 2, lines 3-21.

body and the detecting unit is set in a vertical direction or a vertical slanted direction with respect to the part of body," as recited in independent Claim 59.

U.S. Patent 5,787,185 ("Clayden") describes a method and apparatus for identifying individuals by detecting subcutaneous vein patterns. Clayden's device includes four laterally positioned incandescent lamps (7, 9, 11, 13), and a video camera (15) positioned directly above a user's hand.[2] As depicted at Fig. 1, the four laterally positioned incandescent lamps (7, 9, 11, 13), and the video camera (15) are both located at a position substantially vertical to the detected body part. Thus, Clayden fails to teach or suggest that "the light source unit is set in a horizontal direction or horizontally slanted direction with respect to the part of the body and the detecting unit is set in a vertical direction or a vertical slanted direction with respect to the part of body," as recited in independent Claim 59.

U.S. Patent 6,301,375 ("Choi") describes an apparatus and method for identifying individuals though their subcutaneous vein patterns and a user-specific identification code (PIN). Choi's device includes a near-infrared light source (10b) located on the top of the apparatus that radiates near-infrared light through a light filter (10c) toward the back of a user's hand on a hand-grip bar (30a).[3] A CCD camera (10a) then captures data from the back of the user's hand. As depicted in Fig. 3B, however, the CCD camera (10a) and the near-infrared light source (10b) are located at a similar position substantially vertical to the position of the detected body part (hand). Thus, Choi fails to teach or suggest that "the light source unit is set in a horizontal direction or horizontally slanted direction with respect to the part of the body and the detecting unit is set in a vertical direction or a vertical slanted direction with respect to the part of body," as recited in independent Claim 59.

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[2] Clayden, col. 2, lines 7-15.
[3] Choi, col. 4, lines 51-66.

U.S. Patent 6,349,227 ("Numada") describes a non-invasive living body measuring apparatus and method which detects an amount of light transmitted through a body part of a living being. The detecting section (1) of Numada includes a light source section (6) and an image capturing section (12) that captures light from the source section (6) that is transmitted through a finger (14).[4] As depicted in Fig. 2, the light source (6) is located directly above the finger (4), while the image capturing section (12) is located on the opposite side of the light source directly below the finger. Thus, Numada fails to teach or suggest "detecting an image of the light reflected or scattered in the part of the body by the light source," but instead describes a process of detecting the light that actually passes through the body part. Further, as noted above, the detector and light source in Numada are configured in substantially straight line relative to the position of the finger. Accordingly, Numada fails to teach or suggest that "the light source unit is set in a horizontal direction or horizontally slanted direction with respect to the part of the body and the detecting unit is set in a vertical direction or a vertical slanted direction with respect to the part of body," as recited in independent Claim 59.

U.S. Patent 6,813,010 (Kono et al., herein "Kono") describes a personal identification system, which uses a vein pattern of a finger, optimizes the amount of light of a light source based on a captured finger image and emphasizes the vein pattern during image processing for identification. Kono's system includes a light source (101) that shines a light on a finger, an imaging unit (103) that captures the image of a finger and an image processing unit (104) that processes captured image data.[5] As depicted in Fig. 3B and 9A, for example, the light source (101) is located directly above the imaging unit (104); and the imaging unit captures the light emitted from the source that passes through the finger. Thus, Kono fails to teach or

[4] Numada, col. 5, lines 52-61.
[5] Kono, col. 2, line 64-col. 3, line 6.

suggest "detecting an image of the light reflected or scattered in the part of the body by the light source," but instead describes a process of detecting the light that actually passes through the body part. Further, as noted above, the detector and light source in Kono are configured in substantially straight line relative to the position of the finger. Accordingly, Kono fails to teach or suggest that "the light source unit is set in a horizontal direction or horizontally slanted direction with respect to the part of the body and the detecting unit is set in a vertical direction or a vertical slanted direction with respect to the part of body," as recited in independent Claim 59.

U.S. Patent 6,993,160 (Miura et al., herein "Miura") describes a device and apparatus for carrying out personal identification by receiving a finger image in a non-contact manner and extracting the vein pattern of the image from this finger image. Miura describes that a plurality of light sources (2) CCD cameras (4) are arranged opposite each other in a coaxial form around the central axis of a finger (20).[6] Thus, Miura describes that a vein pattern is determined by passing light though a finger (20), using light sources and CCD cameras arranged opposite to one another. Thus, Miura fails to teach or suggest "detecting an image of the light reflected or scattered in the part of the body by the light source," but instead describes a process of detecting the light that actually passes through the body part. Further, as noted above, the detector and light source in Miura are configured in substantially straight line relative to the position of the finger. Accordingly, Miura fails to teach or suggest that "the light source unit is set in a horizontal direction or horizontally slanted direction with respect to the part of the body and the detecting unit is set in a vertical direction or a vertical slanted direction with respect to the part of body," as recited in independent Claim 59.

Claims 60-64 depend from Claim 59; Claims 66-70 depend from Claim 65; and Claims 72-74 depend from Claim 71. Accordingly, these dependent claims are patentable for

[6] Miura, col. 4, lines 19-31.

at least the reasons described above. Therefore, Applicants respectfully submit that Claims 59-72, which include the above differentiated features by virtue of independent recitation or dependency, patentably define over the cited references.

III. Conclusion

The petition to make special meets all the requirements of MPEP §708.02(VIII), and therefore, should be granted. Accordingly, Applicants respectfully request that this Application be advanced out of turn for examination, and that the assigned Examiner, pursuant to new rule set forth in 37 C.F.R. §1.133(a)(2), contact the undersigned to schedule an interview for advancing the prosecution of this case.

Respectfully submitted,

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